

Form PTO-1449 (modified)

Atty. Docket No.

UTXC:626US

Serial No.

09/833,112

List of Patents and Publications for Applicant's

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Applicant

Frederick F. Becker *et al.*

Filing Date:

June 14, 2001

Group:

1641

U.S. Patent Documents

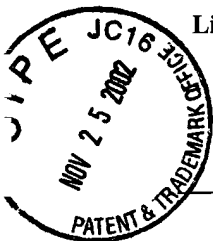
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## U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
PTD	A1	3,970,518	7/20/76	Giaever	195	1.5	7/1/75
	A2	4,018,886	4/19/77	Giaever	424	12	7/1/75
	A3	4,070,246	1/24/78	Kennedy <i>et al.</i>	195	99	4/9/76
	A4	4,115,534	9/19/78	Ithakissios	424	1	6/20/77
	A5	4,115,535	9/19/78	Giaever	424	1	6/22/77
	A6	4,141,687	2/27/79	Forrest <i>et al.</i>	23	230	3/10/77
	A7	4,177,253	12/4/79	Davies <i>et al.</i>	424	1	7/6/77
	A8	4,190,524	2/26/80	Watson	209	213	7/21/75
	A9	4,196,265	4/1/80	Koprowski <i>et al.</i>	435	2	8/11/78
	A10	4,219,411	8/26/80	Yen <i>et al.</i>	209	213	9/18/78
	A11	4,230,685	10/28/80	Senyei <i>et al.</i>	424	12	2/28/79
	A12	4,272,510	6/9/81	Smith <i>et al.</i>	427	47	4/26/76
	A13	4,285,819	8/25/81	Yen <i>et al.</i>	210	679	1/28/80
	A14	4,290,528	9/22/81	Stekly	209	223	6/2/80
	A15	4,375,407	3/1/83	Kronick	209	8	6/22/81
	A16	4,452,773	6/5/84	Molday	424	1.1	4/5/82
	A17	4,454,234	6/12/84	Czerlinski	436	526	12/30/81
	A18	4,523,996	6/18/85	Charles <i>et al.</i>	210	504	2/22/84
	A19	4,526,681	7/2/85	Friedlaender <i>et al.</i>	209	214	10/31/83
	A20	4,554,088	11/19/85	Whitehead <i>et al.</i>	252	62.54	5/12/83
	A21	4,582,622	4/15/86	Ikeda <i>et al.</i>	252	62.53	10/12/84
	A22	4,595,494	6/17/86	Kukuck	209	224	9/13/84
PTD	A23	4,628,037	12/9/86	Chagnon <i>et al.</i>	436	526	6/13/85

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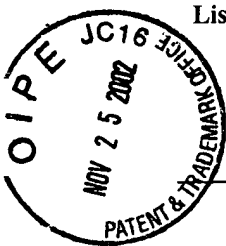
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Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
PTD	A24	4,664,796	5/12/87	Graham <i>et al.</i>	210	222	9/16/85
	A25	4,672,040	6/9/87	Josephson	436	526	6/28/85
	A26	4,695,392	9/22/87	Whitehead <i>et al.</i>	252	62.54	6/13/85
	A27	4,738,773	4/19/88	Muller-Ruchholtz <i>et al.</i>	209	214	5/29/86
	A28	4,751,053	6/14/88	Dodin <i>et al.</i>	422	101	10/22/85
	A29	4,777,145	10/11/88	Luotola <i>et al.</i>	436	526	10/8/85
	A30	4,855,045	8/8/89	Reed	210	223	1/13/83
	A31	4,921,597	5/1/90	Lurie	209	223.2	9/8/89
	A32	4,935,147	6/19/90	Ullman <i>et al.</i>	210	695	10/26/88
	A33	4,941,969	7/17/90	Schonert <i>et al.</i>	209	39	3/25/87
	A34	4,988,618	1/29/91	Li <i>et al.</i>	436	6	5/3/89
	A35	5,053,344	10/1/91	Zborowski <i>et al.</i>	436	177	9/4/90
	A36	5,076,914	12/31/91	Garaschenko <i>et al.</i>	210	186	12/24/87
	A37	5,076,950	12/31/91	Ullman <i>et al.</i>	252	62.51	6/5/90
	A38	5,091,206	2/25/92	Wang <i>et al.</i>	427	2	5/30/89
	A39	5,108,933	4/28/92	Liberti <i>et al.</i>	436	501	8/4/89
	A40	5,158,871	10/27/92	Rossomando <i>et al.</i>	435	7.32	2/2/89
	A41	5,183,638	2/2/93	Wakatake	422	64	12/3/90
	A42	5,200,084	4/6/93	Liberti <i>et al.</i>	210	695	9/26/90
	A43	5,279,936	1/18/94	Vorpahl	435	6	12/22/89
	A44	5,454,472	10/3/95	Benecke <i>et al.</i>	209	127.1	8/19/92
PTD	A45	5,569,367	10/29/96	Betts <i>et al.</i>	204	547	1/27/95

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PM	A46	5,571,401	11/5/96	Lewis <i>et al.</i>	205	787	3/27/95
	A47	5,653,859	8/5/97	Parton <i>et al.</i>	204	450	1/21/94
	A48	5,683,569	11/4/97	Chung <i>et al.</i>	205	775	2/28/96
	A49	5,814,200	9/29/98	Pethig <i>et al.</i>	204	547	3/31/94
	A50	5,858,192	1/12/99	Becker <i>et al.</i>	204	547	10/18/96
	A51	5,888,370	3/30/99	Becker <i>et al.</i>	204	643	2/23/96
	A52	5,965,452	10/12/99	Kovacs	436	149	7/9/96
	A53	5,993,630	11/30/99	Becker <i>et al.</i>	204	547	1/31/96
	A54	5,993,631	11/30/99	Parton <i>et al.</i>	204	547	7/8/97
	A55	5,993,632	11/30/99	Becker <i>et al.</i>	204	547	2/1/99
	A56	6,010,616	1/4/00	Lewis <i>et al.</i>	205	787	12/8/97
	A57	6,017,696	1/25/00	Heller	435	6	7/7/94
	A58	6,093,308	7/5/00	Lewis <i>et al.</i>	205	787	2/26/99
	A59	6,099,803	8/8/00	Ackley <i>et al.</i>	422	68.1	2/20/98
	A60	6,113,768	9/5/00	Fuhr <i>et al.</i>	204	643	12/23/94
	A61	6,129,828	10/10/00	Sheldon, III <i>et al.</i>	204	518	9/6/96
	A62	6,224,745 B1	5/1/01	Baltruschat	205	775	3/5/98
	A63	6,225,059 B1	5/1/01	Ackley <i>et al.</i>	435	6	1/29/99
	A64	6,287,832 B1	9/11/01	Becker <i>et al.</i>	435	173.9	9/14/99
PM	A65	6,294,063 B1	9/25/01	Becker <i>et al.</i>	201	450	2/12/99

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## Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
P70	B1	EP 0513064	11/19/92	Europe	—	—	—
	B2	EP 0625267	11/23/94	Europe			
	B3	EP 0680380	11/8/95	Europe			
	B4	EP 0691891	1/17/96	Europe			
	B5	EP 0898493	3/3/99	Europe			
	B6	WO 00/69565	11/23/00	PCT			
	B7	WO 93/04199	8/19/93	PCT			
	B8	WO 93/16383	8/19/93	PCT			
	B9	WO 94/16821	8/4/94	PCT			
	B10	WO 97/34689	9/25/97	PCT			
P70	B11	WO 99/62622	12/9/99	PCT	—	—	—

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Exam. Init.	Ref. Des.	Citation
P70	C1	"Bangor biochip heads for California," EPSRC Home Page: <a href="http://www.epsrc.ac.uk/documents/about_epsrc/corporate_publications/bangor.ht">http://www.epsrc.ac.uk/documents/about_epsrc/corporate_publications/bangor.ht</a> , article printed on December 26, 2000.
	C2	"Diagnostic dielectrophoresis-on-a-chip," <i>Science/Technology</i> , 77(8):32, 1999. Article printed from <a href="http://pubs.acs.org/hotartcl/cenear/99022/7708scitobox2.html">http://pubs.acs.org/hotartcl/cenear/99022/7708scitobox2.html</a> on December 26, 2000.
	C3	Abidor <i>et al.</i> , "Membrane electrofusion yields in membrane fractions obtained with a colloid-osmotic hemolysis and electrohemolysis procedure," <i>Bioelectrochem. Bioenerget.</i> , 34:31-37, 1994.
P70	C4	Allsopp <i>et al.</i> , "Impedance technique for measuring dielectrophoretic collection of microbiological particles," <i>J. Phys. D: Appl. Phys.</i> , 32:1066-1074, 1999.

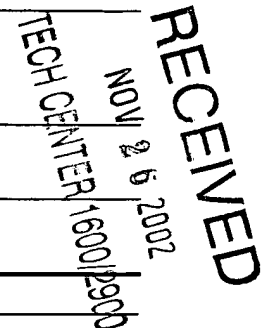
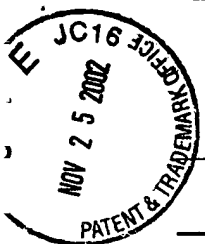
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Exam. Init.	Ref. Des.	Citation
PTD	C5	Arnold and Zimmermann, "Electro-rotation: developments of a technique for dielectric measurements on individual cells and particles," <i>J. Electrostat.</i> 21 151-191, 1988.
	C6	Arnold and Zimmermann, "Rotation of an isolated cell in a rotating electric field," <i>Naturwissenschaften</i> 69 297-300, 1982.
	C7	Balachandran <i>et al.</i> , "Electrostatic atomization of conducting liquids using AC superimposed on DC fields," <i>IEEE Transactions on Industry Applications</i> , 30(4):850-854, 1994.
	C8	Barany, "Genetic disease detection and DNA amplification using cloned thermostable ligase," <i>Proc. Natl. Acad. Sci. USA</i> , 88:189-193, 1991.
	C9	Barlow <i>et al.</i> , "Film deposition techniques and processes," in <i>Thin Film Technology Handbook</i> , McGraw-Hill, New York, Ch 1, 1998.
	C10	Becker <i>et al.</i> , "Separation of human breast cancer cells from blood by differential dielectric affinity," <i>Proc. Natl. Acad. Sci. USA</i> , 92(3):860-864, 1995.
	C11	Becker <i>et al.</i> , "The removal of human leukaemia cells from blood using interdigitated microelectrodes," <i>J. Phys. D.: Appl. Phys.</i> , 27:2659-2662, 1994.
	C12	Brakeman <i>et al.</i> , "Neuronal localization of the adenomatous polyposis coli tumor suppressor protein," <i>Neuroscience</i> , 91(2):661-672, 1999.
	C13	Cheng <i>et al.</i> , "Preparation and hybridization analysis of DNA/RNA from <i>E. coli</i> on microfabricated bioelectronic chips," <i>Nature Biotechnology</i> , 16:541-546, 1998.
	C14	Dutton <i>et al.</i> , "Iron-dextran antibody conjugates: general method for simultaneous staining of two components in high-resolution immunoelectron microscopy," <i>Proc. Natl. Acad. Sci.</i> , 76, 3392-3396, 1979.
	C15	El-Kishky and Gorur, "Electric field and energy computation on wet insulating surfaces," <i>IEEE Transaction on Dielectrics and Electrical Insulation</i> , 3(4):587-593, 1996.
	C16	El-Kishky and Gorur, "Electric field computation on an insulating surface with discrete water droplets," <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 3(3):450-456, 1996.
	C17	Fuhr <i>et al.</i> , "Dielectric spectroscopy of chloroplasts isolated from higher plants - characterization of the double-membrane system," <i>Plant Cell Physiol.</i> 31, 975-985, 1990.
PTD	C18	Fuller <i>et al.</i> , "Microfabricated multi-frequency particle impedance characterization system," <i>Micro Total Analysis System</i> , May 2000.

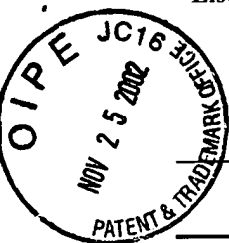
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ptd	C19	Galicki <i>et al.</i> , "Electrohydrodynamic atomization of dielectric fluids," <i>Conference on Electrical Insulation and Dielectric Phenomena</i> , IEEE Annual Report, 365-368, 1996.
	C20	Gascoyne <i>et al.</i> , "Manipulations of erythroleukemia cells using travelling electric fields," <i>Proc. 16th IEEE:Eng. Med. Biol. Soc.</i> , 772-773, 1994.
	C21	Gascoyne <i>et al.</i> , "Membrane changes accompanying the induced differentiation of friend murine erythroleukemia cells studied by dielectrophoresis," <i>Biochim. Biophys. Acta</i> , 1149:119-126, 1993.
	C22	Gascoyne <i>et al.</i> , "Numerical analysis of the influence of experimental conditions on the accuracy of dielectric parameters derived from electrorotation measurements," <i>Bioelectrochem. Bioenerg.</i> , 36:115-125, 1995.
	C23	Gawad <i>et al.</i> , "Impedance spectroscopy cell analysis in microchannels," <i>Micro Total Analysis Systems</i> , 253-255, 2001.
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	C25	Gefter <i>et al.</i> , "A simple method for polyethylene glycol-promoted hybridization of mouse myeloma cells," <i>Somatic Cell Genet.</i> , 3: 231-236, 1977
	C26	Gellert <i>et al.</i> , in <i>The VNR Concise Encyclopedia of Mathematics</i> (Van Nostrand Reinhold, New York) pp 420-424, 1977.
	C27	Geohegan <i>et al.</i> , "The detection of human B lymphocytes by both light and electron microscopy utilizing colloidal gold labeled anti-immunoglobulin," <i>Immunol. Comm</i> , 7:1-12, 1978.
	C28	Gimsa <i>et al.</i> , "Dielectrophoresis and electrorotation of neurospora slime and murine myeloma cells," <i>Biophys. J.</i> , 60:749-760, 1991.
	C29	Goding, <i>In Monoclonal Antibodies: Principles and Practice</i> , 2d ed., Orlando, Fla., Academic Press, pp. 60-61, 65-66, and 71-74, 1986.
	C30	Guatelli <i>et al.</i> , "Isothermal, in vitro amplification of nucleic acids by a multienzyme reaction modeled after retroviral replication," <i>Proc. Natl. Acad. Sci. USA</i> 87:1874-1878, 1990.
ptp	C31	Hagedorn <i>et al.</i> , "Travelling-wave dielectrophoresis of microparticles," <i>Electrophoresis</i> , 13:49-54, 1992.

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PD	C32	He <i>et al.</i> , "Droplet charge-to-mass ratio measurement in an EHD liquid-liquid extraction system," <i>IEEE Transactions on Industry Applications</i> , 32(1):146-154, 1996.
	C33	Higashiyama <i>et al.</i> , "Behavior of water droplets located on a hydrophobic insulating plate under DC field," <i>IEEE</i> , 1808-1813, 1998.
	C34	Hoffman and Britt, "Flow-system measurement of a cell impedance properties," <i>J. Histochemistry and Cytochemistry</i> , 27:234-240, 1979.
	C35	Hoffman <i>et al.</i> , "Flow cytometric electronic direct current volume and radiofrequency impedance measurements of single cells and particles," <i>Cytometry</i> , 1:377-384, 1981.
	C36	Hölzel and Lamprecht, "Dielectric properties of yeast cells as determined by electrorotation," <i>Biochim. Biophys. Acta</i> 1104,195-200, 1992.
	C37	Hölzel <i>et al.</i> , "Characterization of cells by dielectrophoretic techniques," in <i>Physical Characterization of Biological Cells</i> , eds. Schütt, <i>et al.</i> , (Verlag Gesundheit Gmh, Berlin), 273-294, 1991
	C38	Hosokawa <i>et al.</i> , "Handling of picoliter liquid samples in a Poly(dimethylsiloxane)-based microfluidic device," <i>Anal. Chem.</i> , 71:4781-4785, 1999.
	C39	Hu <i>et al.</i> , "Alterations in the electrical properties of T and B lymphocyte membranes induced by mitogenic stimulation. Activation monitored by electro-rotation of single cells," <i>Biochim. Biophys. Acta</i> 1021, 191-200, 1990.
	C40	Huang <i>et al.</i> , "Differences in the AC electrodynamics of viable and non-viable yeast cells determined through combined dielectrophoresis and electrorotation studies," <i>Phys. Med. Biol.</i> 37, 1499-1517, 1992.
	C41	Huang <i>et al.</i> , "Electrokinetic behaviour of colloidal particles in travelling electric fields: studies using yeast cells," <i>J. Phys. D: Appl. Phys.</i> , 26:1528-1535, 1993
	C42	Huang <i>et al.</i> , "Introducing dielectrophoresis as a new force field for field-flow fractionation," <i>Biophys. J.</i> , 73(2):1118-1129, 1997.
PD	C43	Huang <i>et al.</i> , "Membrane dielectric responses of human T-lymphocytes following mitogenic stimulation," <i>Biochim. Biophys. Acta</i> , 1417(1):51-62, 1999.

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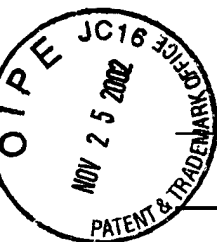
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List of Patents and Publications for Applicant's

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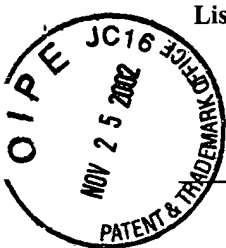
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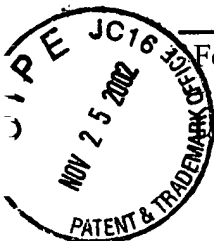
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Frederick F. Becker *et al.*Filing Date:  
June 14, 2001Group:  
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